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SMITH, GAMBRELL & RUSSELL, LLP  
SUITE 3100, PROMENADE II  
1230 PEACHTREE STREET, N.E.  
ATLANTA, GA 30309-3592

EXAMINER

BAREFORD, KATHERINE A

ART UNIT PAPER NUMBER

1762

DATE MAILED: 03/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/631,280

**Applicant(s)**

FOX ET AL.

**Examiner**

Katherine A. Bareford

**Art Unit**

1762

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 January 2005.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-17 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

The amendment of January 19, 2005 has been received and entered.

### *Specification*

1. The disclosure is objected to because of the following informalities: (1) at pages 8, 9, 10 and 13 graphs are provided in the specification. These are drawings that need to be removed from the specification and reprovided as drawings, with figure numbers. The specification should be amended accordingly to reflect that that graphs are now figures. (2) at page 28, photograph type drawings are provided in the specification. These are drawings that need to be removed from the specification and reprovided as drawings, with figure numbers. The specification should be amended accordingly to reflect that that graphs are now figures.

Appropriate correction is required.

2. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because as discussed in the paragraph above, drawings were improperly provided in the specification. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

3. The Examiner notes that in response to the paragraph 1 objection above, in the January 19, 2005 amendment, applicant requested that the objection be held in abeyance until allowable claims have been indicated. However, this objection will no longer be held in abeyance as drawing corrections are required (as discussed by paragraph 2 above).

4. The objection to the specification as failing to provide proper antecedent basis for the claimed subject matter is withdrawn due to applicant's amendments to page 29.

5. The amendment filed Jan. 29, 2005 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

in the provided amendment to page 29, in the third paragraph, it is noted that the carbon dioxide is in an amount of from about 0.1 to about 1.0 weight percent of the "wood protectant fluid". This is new matter as there is no previous indication in the originally filed disclosure that the weight percent of the carbon dioxide is measured based on the amount of the "wood protectant fluid".

In the provided amendment to page 29, in the third paragraph, it is noted that the "mole ratio" of wood protectant to carbon dioxide is in a certain range. This is new matter as there is no previous indication in the originally filed disclosure that the ratio is based on a "mole" ratio.

In the provided amendment to page 29, in the fourth paragraph, it is noted that the pH is advantageously within a range of from about 9.0 to less than about 10.0 and preferably from about 9.3 to about 9.5. This entire paragraph is new matter, as there is no previous basis or indication in the originally filed disclosure that the pH range should be as claimed.

Applicant is required to cancel the new matter in the reply to this Office Action.

### *Claim Objections*

6. The objections to claims 2, 5 and 8 because of informalities is withdrawn due to applicant's January 19, 2005 amendments to the claims.

### *Claim Rejections - 35 USC § 112*

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 1-8 and 10-17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claim 1, last 2 lines, applicant has amended the claim to provide that “the pH of the resulting fluid is from about 9.0 to less than about 10.0”. This is new matter because no basis is provided in the originally filed disclosure for this range.

In claim 8, last two lines, impregnation of the listed agents occurs “at the time said wood substrate is impregnated with wood protectant.” This is new matter because no basis is provided in the originally filed disclosure for this timing.

In claims 10-11, the carbon dioxide amount is measured based on the weight of the “wood protectant fluid”. This is new matter because no basis is provided in the originally filed disclosure for this measurement.

In claims 12-13, the ratio of the wood protectant to carbon dioxide is a “mole ratio”. This is new matter because no basis is provided in the originally filed disclosure for the use of a mole ratio.

In claim 15, last two lines, the claim now requires that “the pH of this resulting fluid is from about 9.0 to less than about 10.0”. This is new matter because no basis is provided in the originally filed disclosure for this range.

In claim 16, last two lines, impregnation of the listed agents occurs “before or after said wood substrate is impregnated with wood protectant.” This is new matter because no basis is provided in the originally filed disclosure for this timing.

In claim 17, line 1, the claim requires that “the pH is from about 9.3 to less than about 9.5”. This is new matter because no basis is provided in the originally filed disclosure for this range.

The other dependent claims do not cure the defects of the claims from which they depend.

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 1-8 and 10-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, line 7, "the resulting fluid" lacks antecedent basis, and is unclear whether the fluid for impregnation is referred to or the fluid after impregnation.

Claim 15, line 9, "this resulting fluid" lacks antecedent basis, and is unclear whether the fluid for impregnation is referred to or the fluid after impregnation.

The other dependent claims do not cure the defects of the claims from which they depend.

*Claim Rejections - 35 USC § 102*

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 9 and 14-15 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 00/27547 (hereinafter '547).

'547 teaches a method of performing an impregnating treatment on a resin containing wood substrate using a fluid. See pages 8-10. A wood substrate is provided. Page 8. The substrate is contacted with the fluid. Pages 8-10. Contact between the wood substrate and the fluid is maintained for a time period sufficient to obtain the desired penetration. Page 8. The fluid is a wood protectant with carbon dioxide added thereto. Pages 8-10.

Claim 9: in order to provide a lignocellulosic product (wood) resistant to insect and fungal attack, the wood is treated with an impregnant of pesticide or fungicide and carbon dioxide. See pages 8-10.

Claims 14-15: a protected wood product is produced by the method of claim 1. see page 18, line 30 through page 19, line 5.

While '547 does not teach the pH range of claim 1 (from which claim 10 depends) or claim 15, this pH range does not affect the structure required by the product claims 14 and 15, and '547 provides a wood product penetrated to the desired extent with the protectant material, which is the structure required by the product claim.

13. The rejection of claims 1, 3-4, 8 and 14-15 under 35 U.S.C. 102(b) as being anticipated by Dahlgren (US 3976594) is withdrawn due to the amendments of January 19, 2005.

14. Claims 9 and 14-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Hager (US 4287239).



VBS Hagar teaches a method of performing an impregnating treatment on a resin containing wood substrate using a fluid. Column 1, lines 45-55 and column 5, lines 35-68. A wood substrate is provided. Column 5, lines 35-45. The substrate is contacted with the fluid. Column 5, lines 35-68. Contact between the wood substrate and the fluid is maintained for a time period sufficient to obtain the desired penetration. Column 5, lines 35-68. The fluid is a wood protectant with carbon dioxide added thereto. Column 3, lines 40-55 and column 4, lines 1-15.

Claim 9: in order to provide a lignocellulosic product (wood) resistant to insect and fungal attack, the wood is treated with an impregnant of pesticide or fungicide and carbon dioxide. Column 1, lines 45-55, column 5, lines 35-68, column 3, lines 40-55 and column 2, lines 15-25.

Claims 14-15: a protected wood product is produced by the method of claim 1. column 5, lines 35-68.

While Hagar does not teach the pH range of claim 1 (from which claim 10 depends) or claim 15, this pH range does not affect the structure required by the product claims 14 and 15, and Hagar provides a wood product penetrated to the desired extent with the protectant material, which is the structure required by the product claim.

15. Claims 9 and 14-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Japan 11-000904 (hereinafter '904).

'904 teaches a method of performing an impregnating treatment on a resin containing wood substrate using a fluid. See the abstract. A wood substrate is provided. See the abstract.

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The substrate is contacted with the fluid. See the abstract. Contact between the wood substrate and the fluid is maintained for a time period sufficient to obtain the desired penetration. See the abstract. The fluid is a wood protectant with carbon dioxide added thereto. See the abstract.

Claim 9: in order to provide a lignocellulosic product (wood) resistant to insect and fungal attack, the wood is treated with an impregnant of pesticide or fungicide and carbon dioxide. See the abstract (the materials listed) and paragraph [0001]..

Claims 14-15: a protected wood product is produced by the method of claim 1. See the abstract.

While '904 does not teach the pH range of claim 1 (from which claim 10 depends) or claim 15, this pH range does not affect the structure required by the product claims 14 and 15, and '904 provides a wood product penetrated to the desired extent with the protectant material.

### *Claim Rejections - 35 USC § 103*

16. The rejection of claim 4 under 35 U.S.C. 103(a) as being unpatentable over '547 as applied to claims 1-3, 5-9 and 14-15 above, and further in view of Dahlgren (US 3976594) is withdrawn due to the January 19, 2005 amendments to the claims.

17. The rejection of claims 10-13 under 35 U.S.C. 103(a) as being unpatentable over Dahlgren (US 3976594) is withdrawn due to the January 19, 2005 amendments to the claims.

18. The rejection of claims 12-13 under 35 U.S.C. 103(a) as being unpatentable over Hager (US 4287239) is withdrawn due to the January 19, 2005 amendments to the claims.

*Response to Arguments*

19. Applicant's arguments filed January 19, 2005 have been fully considered but they are not persuasive.

As to claims 1-8 and 10-17, these claims are all rejected as containing new matter and having 35 USC 112, second paragraph problems as discussed in the new rejections above.

As to claims 9 and 14-15, these claims are also rejected under 35 USC 102 for the reasons discussed above.

As to applicant's arguments as to the 35 USC 102 rejections of claims 9 and 14-15:

(1) as to '547 being nonaqueous with only two biocides with anti-fungal activity, the Examiner has reviewed this argument, however the claims do not require aqueous material and as discussed at page 9, lines 20-25, the material can be one or more materials that can be fungicides or insecticides. As to '547 having a different reason and method of using carbon dioxide, the Examiner has reviewed this argument, however the use of carbon dioxide is such as to provide an identical product of the structure as claimed, which is all that is required to reject the product claims 9 and 14-15. (2) as to Hager requiring the long conditioning to improve penetration, the Examiner has reviewed this argument, however, the resultant product claims would be the same. As to Hager requiring the drying and warming as described, the Examiner has reviewed this argument, however, the resultant product claims would be the same. As to Hager using more

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carbon dioxide, the Examiner has reviewed this argument, however the use of carbon dioxide is such as to provide an identical product of the structure as claimed, which is all that is required to reject product claims 9 and 14-15. As to the pH of the Hager formulation, the Examiner has reviewed this argument, however, as discussed in the rejection above, the pH used does not affect the resultant structure of the product. As to the use of biocarbonate, the Examiner has reviewed this argument, however, this is not prevented by the claims as worded. As to the process of diffusion, the Examiner has reviewed this argument, however, this does not affect the resulting structure of the product as claimed. (3) as to '904 having a different use of carbon dioxide, the pH range, aqueous system, and temperature, and ultrasonic energy, the Examiner has reviewed this argument, however, this does not affect the resulting structure of the product of claims 9 and 14-15 as claimed.

### *Conclusion*

20. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37


CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katherine A. Bareford whose telephone number is (571) 272-1413. The examiner can normally be reached on M-F(6:00-3:30) with the First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on (571) 272-1423. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and for After Final communications.

Other inquiries can be directed to the Tech Center 1700 telephone number at (571) 272-1700.

Furthermore, information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**KATHERINE BAREFORD**  
**PRIMARY EXAMINER**